

# Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz transmitter (Musical Tree Lighting Snowman). The EUT is powered by 4.5V DC (3 x 1.5V AAA batteries). The EUT is operating at 2407MHz, 2445MHz and 2477MHz. After switching on the EUT, it will transmit a signal to turn on the light on receiver.

**Antenna Type: Internal antenna**

**Antenna Gain: 0dBi**

**Nominal rated field strength: 95.9 dBμV/m at 3m**

**Maximum allowed field strength of production tolerance: +/- 3dB.**

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 98.9dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 2.329mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain  
So;

Conducted Power = 2.329mW.

The SAR Exclusion Threshold Level:

$= 3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$   
 $= 3.0 \cdot 5 / \sqrt{2.477} \text{ mW}$   
 $= 9.53 \text{ mW}$

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.